Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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REPLY COMMENTS OF MOBILE FUTURE

Mobile Future respectfully submits these reply comments in response to the Federal Communications Commission's ("FCC" or "Commission") public notice soliciting input and data for its Sixteenth Annual Report on the State of Competition in Mobile Wireless. Mobile Future urges the Commission to acknowledge the significant competition in the mobile arena and provides the attached report detailing key consumer and technology mobile trends in 2011.

2011 Mobile Year in Review² showcases the exciting technological developments and ground-breaking wireless innovations from the past year. The staggering growth in consumer mobile usage resulted in more wireless subscriptions than people for the first time in U.S. history. Other key 2011 highlights include:

- Huge increases in app creation and downloads;
- Surge in use of social media mobile platforms;
- Ongoing explosion in data traffic;
- Unprecedented competition and choice; and
- Massive potential for job creation and economic growth

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¹ Wireless Telecommunications Bureau Seeks Comment on the State of Mobile Wireless Competition, *Public Notice*, WT Docket 11-186 (rel. Nov. 3, 2011).

² See Attachment.

One thing is clear – the mobile future has arrived. The result is a wireless sector that is a model of success in today's innovation economy. Policymakers must continue to embrace this technological revolution and maintain policies that encourage continued competition, investment, and innovation.

Respectfully submitted,

/s/ Jonathan Spalter

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December 20, 2011



PRESENTED BY MOBILE FUTURE
DECEMBER 2011



"Within the next five years,
we'll make it possible
for businesses to deploy
the next generation
of high-speed wireless coverage
to 98 percent of all Americans.
This isn't about faster Internet
or fewer dropped calls.
It's about connecting
every part of America
to the digital age."

President Barack Obama 2011 State of the Union Address January 25, 2011



Dear Friends,

We started the year with President Obama calling for virtually all Americans to be connected to the opportunities of the mobile Internet. Already, there are 327 million mobile devices used in the United States. And, for the first time in history, the number of wireless connections now outnumbers the U.S. population. This progress shows no sign of abating. Everything from household appliances to clothing that monitors vital signs are connecting wirelessly. Some predict there will be 2 billion networked mobile devices in our nation alone by 2015. That's six devices per man, woman and child in the United States.

We are rapidly headed into an exciting future where everything will be connected. And the potential to improve virtually every aspect of modern life is staggering—from health, to education, to economic productivity to energy efficiency, participation in our government to connections to friends and family. Fortunately, choice and heated competition continue to define every aspect of the marketplace in

United States of Mobile Our country now has more wireless subscriptions than people.

2011, as evidenced by the many carriers who debuted 4G services, the arrival of the iconic iPhone in four carrier offerings and the rise of the tablet wars—just in time for the holiday gift-giving season.

Amid the rapid innovation, the mobile community mourns the loss of a true American original. Steve Jobs transformed the promise of mobile innovation into something that was endlessly relevant and customizable to the needs and wants of every American. His vision gave rise to whole new segments of our industry—from mobile music to must-have devices and tablets to a rapidly expanding universe of applications that are changing our lives. The trail he blazed is clearing a path for the next generation of young innovators. Apple alone paid independent apps developers an estimated \$3 billion this year—not bad for a market that didn't exist 10 years ago.²

Mobile innovation shows no signs of abating for lack of vision. However, all eyes increasingly are on Washington to ensure that the mobile Internet can continue to expand, revolutionize our lives, and support our economy. The wireless sector supports 2.4 million American jobs.³ If we are able to build out 500 MHz of additional spectrum for mobile, we can create 500,000 more U.S. jobs and add \$400 billion to the nation's GDP.⁴ By the year 2020, an estimated \$1.2 trillion of economic activity will be added to the nation's economy annually, seven times the estimate for this year.⁵ And that's not counting the innovations we can't even imagine today.

Today, America leads the world in 3G users. And, wireless providers, including AT&T, Clearwire, MetroPCS, Sprint, T-Mobile and Verizon have begun to roll out competitive 4G services, with North America holding 87% of worldwide LTE connections. Our leaders and regulators must do all they can to encourage this breathtaking innovation and substantial investment to continue. While we can't predict with precision what's next, one thing is clear after a year of profound progress: *The mobile future has arrived*.

Jonathan Spalter

Chairman

Speed Dial: 2011 Quick Facts

Mobile Innovations = American Jobs

Wireless supports 2.4 million American jobs — from engineers, to apps developers to retail workers, 6 and these positions typically pay 50% or more above the average national salary 7 .

500 MHz = 500,000 Jobs

Answering the President's call to build out an additional 500 MHz of spectrum available to expand the mobile Internet will create 500,000 U.S. jobs and add \$400 billion to U.S. GDP.⁸

U.S. Wireless Subscriptions Now Outnumber People

There are now more wireless subscriptions than people 9 and it is forecast that there will be two billion networked devices in our nation by 2015^{10} — six for every man, woman and child.

U.S. Faces Higher Risk of Spectrum Exhaust than Global Competitors

U.S. mobile networks now run at 80% of capacity, compared to the world average of 65%. Without more spectrum, mobile Internet demand may overwhelm capacity within two years, causing a deficit in three years. 12

The Catalyst: Fast-Rising Data Traffic

Consumer enthusiasm for bandwidth-hungry tablets and smart phones drive forecasts that wireless data traffic will grow 21-fold from 2010 to 2015, with U.S. wireless networks in four years moving data at twice the volume of the entire global Internet in 2005.

Closing the Digital Divide: Minorities Lead Mobile Internet Adoption

African-Americans and Latinos are more likely to own smartphones¹³ and are twice as likely to use the mobile Internet as their primary means of going online.¹⁴

U.S. Leads in Value

U.S. consumers get far more "bang for the buck" with one minute of average work earnings buying 19 minutes of talk time. In #2 Finland, one minute of work buys just five minutes of talk.¹⁵

Early 4G Market Shows Intense Competition

This year, AT&T and Sprint joined MetroPCS, Clearwire, Verizon and T-Mobile in offering 4G service in select U.S. markets. Leap Wireless and US Cellular are expected to join the fray soon.

Robust Network Investment Continues

Despite the challenging economy, wireless carriers delivered approximately \$27.5 billion in investment in U.S. mobile networks last year. 16

A Bright Light Amid a Dim Economy

"We believe that mobile will create the largest technology market ever. This market will dwarf the PC and all the PC industry has done. This new, huge technology market will transform almost every industry."— Dennis Woodside, SVP of the Americas, Google, February 2011

As the nation focused on job creation and economic recovery, mobile innovation stood out as a shining beacon of hope to power economic renewal for the country. On the most recent Black Friday, the iPhone 4S sold out of 75% of Apple retail stores and the iPad was selling at nearly 15 per hour in stores, leading to Apple's biggest sale day ever. Similarly, Amazon also saw its biggest sale day ever for Kindle products, selling four times as many as last year.¹⁷

And, the mass popularity of these devices opens up a whole set of new opportunities — for applications developers, wireless providers and companies throughout our economy that are seeking stronger and more innovative performance.

Already, the wireless sector is a critical engine of American jobs and economic growth, performing well for our economy despite the economic downturn. Direct and indirect employment from the mobile community totaled over 2.4 million jobs, ¹⁸ with direct employment by the nation's wireless carriers growing almost 6 percent annually over the last four years.

One sector that has embraced the full potential of wireless is small business. Today, a full 96% of small businesses use wireless technologies. More than 70% use apps to save time, increase productivity and reduce costs. And, 40% of small businesses couldn't survive without wireless technologies.¹⁹

We're just starting to see the full potential of the revolutionary intersection of robust devices, applications and next-generation wireless networks to U.S. productivity. More spectrum and the broad innovation it sparks will mean more jobs and growth throughout our economy. In fact, a recent study released by Mobile Future found that building out an additional 500 MHz of spectrum for mobile will create an additional 500,000 U.S. jobs and add \$400 billion to the nation's GDP. These conservative estimates come with a substantial disclaimer: Analysts believe the bullish figures would be eclipsed by what they *can't* predict — the fresh wave of technologies, services, apps and companies that would come from pouring such a solid foundation for the future of the wireless web.

500 MHz = 500,000 U.S. Jobs

Building out 500 MHz of spectrum to expand the mobile Internet will create an additional 500,000 U.S. jobs

In addition to the economic advantages that additional spectrum for the mobile Internet will bring, according to the Congressional Budget Office, spectrum incentive auctions will also raise more than \$15 billion for the U.S. Treasury. To keep the mobile Internet expanding, our nation's leaders also must support innovative business combinations and secondary market transactions that can help ensure adequate spectrum is in place to continue growing our mobile innovation economy.

Wireless innovation and investment has proven to be a powerful engine of job creation, productivity and economic growth. And, more spectrum means more growth in the future.

Spotlight: Mobile Helps Grow Retail Sales

"Mobile commerce will transform retail."— Sucharita Mulpuru, Forrester Analyst, June 2011

Today's business relies on mobile technologies to keep it moving. Over the past 15 years, small firms created 64% of new jobs in this country. ²¹ And, 40% of small business owners claim their business couldn't survive without mobile technologies.

Consumers are embracing their mobile devices, using them more than ever to make purchases, both online and in-store for everything from deciding whether or not to make a purchase to paying for items.

Today, 79% of smartphone Internet users have used their device to help with shopping and 74% have made a purchase as a result of using their smartphone while shopping.²²

This year alone, Paypal expects to process \$3 billion in mobile payments. The most recent evidence of the popularity of mobile payments came on this year's Cyber Monday, when

mobile payments increased six-fold over 2010, according to IBM.

From Google's Wallet app to Chase Paymentech mobile credit card processing and beyond, mobile phones are becoming the newest credit card. In fact, 141 million consumers are expected to make payments using their mobile devices by the end of this year, nearly 40% more than 2010.²³

The game changer for mobile retail? The tablet. Today just 9% of Americans own a tablet. But tablets generate 20% of all online sales due primarily to the opportunities the format presents for richer content interaction with the potential customer. With tablet ownership expected to quadruple in 2011²⁴, that mobile connectivity to commerce could prove a powerful tool for economic revival.

More Mobile Connections than People

"The impact of empowering billions of people around the world with real-time connected devices has just begun. It's going to be a fascinating decade."

— Mary Meeker, Partner, Kleiner Perkins Caufield and Byers, ThinkMobile, February 2011

A key milestone was passed in 2011: Today, there are more wireless devices than there are Americans. Specifically, there are nearly 327 million connected devices and 312.6 million U.S. residents.

Uber-connected smartphones that put the power of the Internet in the palms of our hands are rapidly being embraced by Americans across every demographic. Fueled by a rapidly expanding universe of applications, these devices are less telephones and more digital Swiss army knives — the modern-day 'don't leave home without it' item.

Today, 43% of American mobile phone users own a smartphone. ²⁵ Of 25-34 year olds, 62% own a smartphone. ²⁶ No surprise then that starting in Q4 of 2010, the U.S. market reached another first: More smartphones sold than PCs. ²⁷

And, the size of our population is hardly expected to curb growth in wireless connections. In the United States, there will be 2 billion networked devices in 2015, up from 1 billion in 2010. That's six networked devices (think home thermostats, patient medical tablets and your kids' textbooks) for every man, woman and child in our nation. 28

By 2015, U.S. mobile networks will be expected to handle 56 times the data traffic they experienced in 2009.²⁹

Fast-rising tablet ownership also is fueling dramatic upswings in consumer demand for mobile Internet capacity. Tablet ownership is expected to reach 26.5 million this year.

Far more spectrum is needed to run all the apps, videos and other advanced features available on the devices. The average smartphone consumes 24 times more bandwidth than traditional cell phones, and tablets use as much as 122 times more spectrum that smartphones. With adoption of these sophisticated devices on the rise, more wireless spectrum is imperative.

Smartphones > PCs

2011 broke a new first: More smartphones were sold than PCs

And spectrum is important not simply to support the wireless habits of the millennial generation, but also of an increasingly diverse eco-system of mobile users. A survey by the Institute for Communication Technology Management at the University of Southern California found that minorities are more likely to own a smartphone than non-minorities. According to the PEW Internet and American Life Project, 38% of under 30, nonwhite, lowincome and less-educated smartphone users primarily access the Internet via their smartphones. 30 The age group that's adopting smartphones fastest probably isn't what you think: It's Americans between the ages of 55 and 64.31

As early as 2014, more people may go online via mobile devices than PCs. ³² And, when you look at who's making the connection, it is a model of digital inclusion.

Competition Intensifies

"From applications and devices to new business models and market players, assessing the true health and competitiveness of the mobile marketplace is a complex endeavor."— Jonathan Spalter, Chairman, Mobile Future, May 2011

2011 has brought more wireless choices to Americans. From their choice of carriers and plans to devices and applications, Americans have a broad array of options that encompass different technologies, price points and ways of using mobile connectivity in our daily lives.

Providers: Today, 92% of Americans have a choice of wireless broadband providers and 82% have at least three options for mobile Internet, according to the FCC.

Devices: Over the past four years, the number of wireless handset companies selling devices in the U.S. market rose from 8 to 21, according to the FCC. In June 2010, 10 device makers offered 144 smartphones, nearly triple the number available one year before.

Plans: In addition the various monthly subscription options are evolving, from May 2010 to May 2011, new prepaid customers in the U.S. increased by 6.9 million, compared with 3.6 million new subscribers choosing traditional two-year contract with monthly fees. ³³

Consumers' calls for the iPhone to be available from multiple providers were answered this year, as well. In June, Verizon introduced the iPhone on their network, selling more phones in the first two

hours of availability than any other first day launch in Verizon's history. ³⁴ In October, Sprint began offering the iPhone and C Spire did so in November.

In the nascent tablet market, the competition is heating up, as well. Apple shipped nearly 29 million iPads since April 2010. And, lower-priced competitors are emerging. Best Buy began giving away Samsung's Galaxy tablet with the purchase of a television. The lowered the price of their TouchPad tablet to just \$100, stores sold out of them in about 10 days. The latest entrant — Amazon's Kindle Fire — was a top-seller over Black Friday/Cyber Monday the official kick-off to the holiday shopping season. Will the Kindle Fire set tablet competition ablaze? Forrester Research estimates that 5 million Fires will be sold by January.

As competition throughout the mobile ecosystem intensifies, U.S. consumers have an ever increasing array of choices in their wireless experience. Whether they choose prepaid or postpaid plans, a basic feature phone or smartphone, a regional or national provider, Android or Apple, consumers are driving innovation in the marketplace and a growing array of companies are lining up to respond to their shifting needs.

Dawn of 4G

"Investment in such a powerful form of communication contributes to the economic recovery and provides a job-creating engine for the future."— Phil Asmundson, National Managing Partner-Technology, Media & Telecommunications, Deloitte, August 2011

As consumers increase their use of connected devices, the race is on to deploy 4G service to deliver robust, next-generation mobile Internet throughout the nation. North American LTE connections currently total 3.3 million, or 87% of the 3.8 million worldwide LTE connections.³⁸

To meet consumers' high demand on wireless networks, AT&T, MetroPCS, Clearwire, T-Mobile and Verizon have expanded their 4G networks this year. Sprint also announced plans to deploy its own 4G network, and Leap Wireless and US. Cellular also are expected to launch 4G networks soon.

From players as diverse as Dish Network to new ventures like Republic Wireless, many companies are considering joining the 4G fray — either by building networks of their own and/or pursuing innovative partnerships and new business combinations.

As companies invest in 4G networks to try and keep pace with the competition — and consumers — more jobs and investment flow into our economy.

According to Deloitte, carriers could invest up to \$53 billion in building out their 4G networks in the U.S. through 2016. That investment could lead to the creation of up to 771,000 jobs and increase the nation's GDP by up to \$151 billion.³⁹

One great promise of 4G is connection speeds that begin to rival wired broadband capabilities. With these state-of-the-art networks, consumers will have an enhanced wireless experience and mobile innovators will have an even more robust platform from which to build future applications and services. So this broad-based investment in 4G infrastructure lays a strong foundation for future job creation and economic growth. As more wireless providers invest in 4G networks and technologies, America's wireless experience — and our mobile future — will only improve.

Facing the Challenge of Spectrum Exhaust

"The greatest opportunity for economic growth involves wireless broadband and mobile devices. But this great growth opportunity faces a major impediment with the looming prospect of 'spectrum exhaust.'"— Letter to FCC from 10 venture capitalists, June 2011

As mobile devices rapidly move away from just making phone calls, spectrum is used by consumers to fuel all the mobile activities we take for granted every day.

Right now, just 1/3 of time spent on mobile devices is spent on the "phone. 40" Two thirds is spent doing "everything else" —from apps to the Internet.

As we use our mobile devices in increasingly diverse and important ways, wireless network capacity demands grow exponentially. From June 2010 through June 2011, U.S. wireless data traffic grew 111%. In fact, U.S. mobile data traffic will grow 21-fold from 2010 to 2015, a compound growth rate of 83%. ⁴² This is three times the rate of growth of data traffic over wired broadband networks. ⁴³

Put another way, by 2015 U.S. mobile data traffic will be twice the volume of Internet traffic in 2005.⁴⁴

But that growth has put a strain on our mobile networks. Today, U.S. mobile networks run at 80% of capacity, compared to the world average of 65%. 45 Without additional spectrum, mobile demand may overwhelm capacity within two years, causing a deficit within three years. 46 Today, YouTube alone accounts for 22% of all mobile web traffic.

And, some 10.3 million Americans own a tablet, which uses as much as 122 times more spectrum than smartphones.⁴⁷ By 2015, more than 82 million people are expected to own a tablet.⁴⁸

All of this is good news for our economy, and wireless competitors are racing to keep pace with capacity demands. The wireless community invested \$24 billion in 2010 alone — more than any other sector of the American economy. This year, that investment is expected to rise 10% and in 2012 climb another 16%. ⁴⁹ Over the last 10 years, wireless companies have invested \$223 billion to improve the consumer experience. ⁵⁰

U.S. policymakers and regulators must encourage the availability of additional wireless spectrum and continued robust investment.

The steep adoption and usage growth trajectory among today's consumers powerfully illustrates the importance of the Administration's efforts to make significantly more spectrum available in addition to business transactions to meet consumers' fast-growing spectrum needs. Without additional spectrum, consumers will not get the mobile experience they have come to expect.

Mobile Keeps Us Increasingly Connected

"With traditional CE [Consumer Electronics] stalled, mobile companies roared ahead...It's a reflection of the ongoing transition of our society from a wired society to a wireless one."— Peter Pachal, News Editor, PC Magazine, January 2011

Americans like to stay connected with friends and loved ones. With today's wireless options, there are countless ways to keep in touch.

Thanks to the affordability of wireless, according to a recent study by Roger Entner of Recon Analytics, Americans consume, on average, 50% more on wireless devices than their counterparts anywhere else in the world. No surprise, given that U.S. consumers get by far the greatest "bang for their buck" with one minute of average work earnings buying 19 minutes of talk time. Finland is the second most affordable country, with one minute of work buying just five minutes of talk time.

From traditional phone calls to email and texting to video and Internet searches, Americans are using their mobile devices for an array of activities to keep them in touch and connected from anywhere.

The mass consumer embrace of sophisticated smartphones, tablets and other robust, connected devices are undoubtedly fueling this trend. From June 2010 through June 2011, we consumed 1.148 trillion wireless minutes and sent 1.138 trillion text messages. ⁵¹

Data traffic flowing over mobile networks from June 2010-June 2011 more than doubled — with more exponential growth forecast on the horizon.

And that's not all. Social networking sites are booming in the mobile environment. There are about 350 million Facebook users who access their accounts through their mobile devices.

In the first half of 2011, mobile Facebook use grew 166%. Mobile Twitter surpassed that, growing nearly 300% in the same period. In fact, 40% of all tweets now come from a mobile device. ⁵²

The intersection of mobile and social networking has extraordinary potential to deliver ever more location-based services for wireless consumers. The location-based social networking site Foursquare alone hit 10 million users this past June.

Facebook Mobile: 2011>2010

In the first half of 2011, mobile Facebook use grew 166%

We rely on our mobile devices so much that 25% of U.S. smartphone owners say they mostly go online using their phone, rather than a computer. 53

And in an emergency, a cell phone is literally a lifeline. According to the PEW Internet and American Life Project, 40% of cell phone owners have used their device in an emergency.

Applications also continue to proliferate around our modern-day needs, from remotely interacting with our home devices and appliances to connecting with medical professionals and managing our health to keeping track of the kids, their teachers and their assignments, to monitoring work during hectic periods at the office, mobile connectivity increasingly is central to how we live today — and tomorrow.

Spotlight: Global Game-Changer

"Dictators are on notice. Technology is putting power in the hands of the people."
—President Obama, September 2011

The implications of wireless connectivity extend far beyond America's borders. Thanks to mobile devices and location-based social networking applications, such as Twitter, Facebook, and many others people around the world are able to connect to each other and bring about social change.

As regime after regime fell in this year's "Arab Spring," the world bore witness to the power of technology to give voice to democratic movements and bring an end to repressive regimes that have long relied on their ability to control the media and impede communications to sustain their power.

As President Obama so succinctly put it to the U.N. Security Council, "dictators are on notice.

Technology is putting power in the hands of the people."

Secretary of State Hillary Clinton acknowledged the importance of mobile phones in 2010, stating that "the cell phone is becoming the principal tool of communication, both through the applications that are on it, through the texting that it enables." 54

With more than 4.5 billion mobile subscribers for the world's nearly 7 billion residents, the power to connect, to express our views, to share information, to forge new communities is literally in our hands.



What's Next?

2011 has brought profound growth, opportunity and choice to every segment of the U.S. mobile innovation community — to the great benefit of consumers and our nation.

To keep the wireless innovation we saw this year on track, there must be adequate fuel for that growth — spectrum — to keep the engine running. Without enough spectrum to fuel the latest innovations, consumers will experience slow, unpredictable service — an outcome that should concern and unite all policy leaders, business innovators, and consumers.

Today, Washington has the ability to help the still-young mobile Internet grow and innovate. From transactions that can bring spectrum efficiencies to millions of Americans to voluntary incentive auctions that can support the rapid expansion of the wireless web, now is the time for the nation's policymakers and regulators to act — with decisiveness and speed, but tempered by flexibility and a spirit of humility.

At the beginning of the year, President Obama used his State of the Union address to call on policymakers to "make it possible for businesses to deploy the next generation of high-speed wireless coverage to 98 percent of all Americans." Our leaders — in the Administration and on Capitol Hill — need to make good on that promise and send a clear signal that U.S. innovation policy will remain steady, balanced and constructive.

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